

## CLAIMS

1. A data transmitting apparatus comprising:

packet transmitting means for transmitting  
5 transmission data taking the form of packet via a packet  
communication network;

packet retransmitting means for retransmitting a  
packet requested to retransmit;

control command generating means for generating a  
10 control command that notices a closing of a session and makes  
said packet transmitting means transmit the control command  
as a session close notice packet; and

session closing means for closing the session when  
a predetermined period of time has passed after transmitting  
15 the session close notice packet.

2. The data transmitting apparatus according to claim  
1, which further comprises round-trip time calculating means  
for calculating a round-trip time of data between a party to  
which the data is transmitted and said data transmitting  
20 apparatus;

wherein said session closing means closes the session with  
the party to which the data is transmitted when the round-trip  
time calculated by said round-trip time calculating means has  
passed after transmitting the session close notice packet.

25 3. The data transmitting apparatus according to claim  
1, wherein a session continuation time after transmitting the  
session close notice packet is stored in said session close

notice packet.

4. A data receiving apparatus comprising:

packet receiving means for receiving packets from a data transmitting source via a packet communication network;

5 missing packet determining means for determining whether any packet is missing or not;

control information receiving means for receiving control information including a session close notice packet from the data transmitting source;

10 round-trip time calculating means for calculating a round-trip time of data between the data transmitting source and said data receiving apparatus; and

retransmission determining means for determining whether a retransmission request for a missing packet should  
15 be transmitted or not based on a result of comparison between the session continuation time stored in the session close notice packet and the round-trip time calculated by said round-trip time calculating means.

5. A session closing method to close a session after  
20 continuing the session for a predetermined period of time after transmitting a session close notice packet to a client that notices a closing of the session via a packet communication network.

6. A packet retransmission determining method comprising  
25 the steps of:

receiving a session close notice packet that notices a closing of a session via a packet communication network;

determining whether any missing packet is included or not within received data;

calculating a round-trip time of data between a data transmitting source and a data receiving apparatus; and

5 determining whether a retransmission request for a missing packet should be transmitted or not by comparing a calculated round-trip time and a session continuation time stored in the session close notice packet.

7. A packet retransmission determining program executed  
10 by a computer, wherein said program makes said computer execute the steps of:

receiving a session close notice packet that notices a close of a session via a packet communication network;

determining whether any missing packet is included  
15 or not within received data;

calculating a round-trip time of data between a data transmitting source and a data receiving apparatus; and

determining whether a retransmission request for a missing packet should be transmitted or not by comparing a  
20 calculated round-trip time and a session continuation time stored in the session close notice packet.

8. A data transmitting/receiving system comprising a data transmitting apparatus as defined in claim 1 and/or a data receiving apparatus as defined in claim 4.

25 9. A data transmitting/receiving system comprising:  
a data transmitting apparatus as defined in claim 1 and/or a data receiving apparatus as defined in claim 4, and

a repeater that passes on packets therebetween.

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